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Interfacial Composition of the Ionic Aqueous Solution Studied by the Adsorption of the Cationic Molecules JINSUK SONG, MAHN KIM, Physics Department, KAIST — Knowing the interfacial composition of the ionic aqueous solution is important not only for understanding many atmospheric and environmental chemistry processes[1] but also for understanding many biological processes because the interaction between biomaterials happens often at the interfacial region such as water-vesicle interface in ionic aqueous solution. In this study, the surface anion density is estimated by measuring the surface density and adsorption angle of the cationic molecule, Malachite Green(MG) adsorbed at the air-ionic aqueous solution interface using the second harmonic generation technique. The anion number density at the interface increases with the increasing concentration of the ions and with the increasing size of the anions for spherical ions. It is consistent with other experimental measurements and simulation results[2,3]. However, it seems that the anion density depends not only on the anion but also on the cation and shape and chemical composition of the ions. [1] E. Knipping et al., Science **288**, 301 (2000) [2] S. Ghosal et al., Science **307**, 563 (2005) [3] P. Jungwirth et al., J. Phys. Chem. B **105**, 10468 (2001)

Mahn Kim
Physics Department, KAIST

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